

How long to continue such direct discharge depends on the condition of the wound, the separation of infiltrated and necrotic tissue; also on whether the patient can have trustworthy care. One of the tasks of the surgeon is the treatment proper of the infiltrated spots and the median wound. Statistics here are too much affected by complicating diseases to be reliable. That one-third the fatality after external urethrotomy is caused by the urinary infiltration is, he thinks, rather an underestimate. Pyæmia is perhaps the most frequent complication. After unfortunate experiences he tried and now strongly recommends permanent, that is, prolonged irrigation with very dilute lukewarm sublimate solution. The parts to be irrigated he now first covers with absorbent gauze, then with jute. Apposed surfaces, as in the bend of joints, are covered with a thick layer of flowers of zinc. Position of the patient is important. All pieces of dressing in direct contact with the wound it is well to change once a day. In his cases for infiltration of perineum, scrotum and root of the penis, where such irrigation was done from the sixth to the thirteenth days, first day and night, then with nocturnal intermissions, a good granulating wound and re-enclosed testicle admitted a dry dressing by the thirteenth day. Perhaps in well arranged hospitals permanent sitz baths might be substituted for the prescribed irrigation.—*Arch. f. kl. Chir.*, 1887, bd. 34, hft. iv.

Wm. BROWNING (Brooklyn).

V. The Present Status of the Inquiry into the Functions of the Bladder. By FRITZ BORN (Niederbiff). In this extended paper the author concludes that in the cadaver the closure of the bladder is effected by the sphincter vesicæ internus, which forms a firm support to the folds of mucous membrane to be found at the ostium vesicæ. The posterior of these folds, which are approximated to each other, is of considerable size and in older subjects contains besides mucous membrane prostate tissue. A further closure of the bladder is found not infrequently in the pars membranacea. In women (nullipara) this closure of the bladder is much less firm. If the bladder has been emptied before death the

cadaver closure is less firm. The sphincter in the male cadaver possesses fully the competence for small and median capacity which the bladder in the living subject and during rest requires from the structures surrounding the ostium. In the female cadaver this competence only reaches a minimum. In older individuals the resistance at the sphincter is of such extent as to resist the intravesical pressure increased by the strongest contraction of the abdominal muscles. There must be admitted also a certain tonus of the sphincter which exists during life to account for variations and increase of intravesical pressure, other than is found in experiments on animals. The increase and diminution of the sphincter tonus must correspond to that of the detrusor tonus. In increased tenesmus the sphincter vesicæ externus is strengthened by the whole urethral and perineal muscular apparatus: the sphincter ani and levator ani are also influenced to contraction. These muscles empty and close the urethral canal when the process of urination is interrupted (voluntarily). The feeling of vesical tenesmus is caused by a resistance to the contractions of the muscle of the bladder. Therefore the tenesmus is greatest when a sudden impediment is opposed to the already irritated detrusor contraction. In paralysis of the bladder tenesmus is frequently caused by the passive distention of the bladder. Frequently no such tenesmus exists. The muscles of the bladder can be voluntarily contracted and relaxed. The contraction and relaxation follows more slowly than in striated muscular fibre. The control over the detrusor contraction is exerted by the urethral and perineal muscular apparatus. The bladder contents being incompressible, resistance offered by the latter-named muscles soon wearies the detrusor apparatus. The inability to urinate in some persons (psychical) is explained by the momentary loss of control over the voluntary detrusor contraction. Direct faradization or galvanization of the bladder give no certain contraction.

In children and in all conditions where the influence of the cerebrum is cut off, and that of the lumbar center is intact, the emptying of the bladder is purely reflex. The existence of a center in the lumbar region controlling the closure of the urethra is not proven or nec-

essary, for the sphincter internus is controlled by the same center as the detrusor apparatus. Detrusor lumbar center would be the appropriate nomenclature. Acute lesions of the spinal cord cause retention by paralysis (lumbar region) or by diminution of tonus by a distension of the bladder and an impairment of its capability for contraction. In the first case the bladder remains paralyzed. In the second the bladder may recover itself and the organ may be emptied by reflex act. The theory of reflex inhibitory fibres is untenable as applied to the muscles closing the urethra.—*Zeitschr. f. Chir.*, bd. xxv, heft 1 and 2.

HENRY KOPIJK (New York).

VI. Neuralgia of the Bladder. By PROF. GUYON, (Paris). The causes are varicocele, diseases of testicle and kidney, locomotor ataxy and other forms of myelitis, (of which it is often the first symptom), hysteria, hypochondriasis and simply nervous tendency, inherited or acquired. It is only to the last 3 that he pays attention as the diagnosis otherwise is easy. The most common error is to confound it with painful cystitis, and the following are points to be looked to: In cystitis there are frequent micturition, pain and tenderness of bladder, and alteration of urine. In neuralgia, the urine is normal, there is no frequency of micturition, the bladder is not tender on pressure over hypogastrium, or through the rectum, nor on introduction of the sound, but there is a symptom which is present in all nervous people, or in those who are continually thinking of themselves—increased sensibility and resistance to the passage of an instrument through the membranous portion of the urethra, which is often mistaken for stricture. Further, the bladder will hold a considerable quantity of injected water, which it will not do in cystitis.

This neuralgia commonly occurs in people who suffer from similar pains elsewhere, and it is more frequent in men than in women. For treatment its cause (if there is one) must be removed; and for a nervous person, with no discoverable lesion, treatment for general health, and *very gradual* dilatation of urethra with bougies: it is important that the dilatation be not rapid or forcible. Hydropathy is generally very beneficial.—*Progrès Medical.* July 2, 1887.

H. DESVOEUX (London).